

A photograph of three blue geometric solids (a cone, a sphere, and a rectangular prism) resting on wooden blocks. The background is a blurred indoor setting with warm lighting. A teal banner is overlaid on the bottom half of the image, containing the title text.

Sensorial Education Lesson 1



This week we shall continue deepening our understanding of the Montessori Child with the introduction of Sensory Education.

Sensory Education 1

Lesson Objectives:

1. To Introduce the subject Sensory Education
2. To have a birds – eye view of the aims and objective of materials used in this area.
3. To give a pictorial view of the Montessori Materials used for Sensory Education

Sensory Education Notes 1

"The senses, being explorers of the world, open the way of knowledge"

"The things he sees are not just remembered; they form a part of his soul."

"The senses, being explorers of the world, open the way of knowledge"

Maria Montessori

What is Sensory Education?

Sensory Education is one of the Five Core Areas in the Montessori Curriculum. Maria Montessori believed that it is very important to train the senses and correct abnormalities from a very early stage, as it was one of the major tools of learning for the child.

The child in the first stage of development is very interested in his environment, he wants to learn and understand the world around him and he does this through his senses.

Maria Montessori said in The Discovery of the Child that

"The Mind of a little child is certainly not a blank when he begins the education of the senses, but his concepts are all confused. He begins to distinguish various traits in objects already known. He distinguishes quantity from quality and separates form from colour. He distinguishes dimensions in objects that are long or short, thick or thin, large or small. He separates colours into groups and calls them by name. He notices the varying intensities of colours, calling the two extremes light and dark. Finally, he distinguishes tastes from smells, lightness from softness, and sounds from noises. He succeeds through the education of his senses in ordering his mental images. This is the first act of ordering in his developing mind. This sense of order that has been acquired early is of utmost importance for later life."

A child's mind develops through movement and the use of their hands to hold objects, thereby acquiring sense impressions from their surroundings. The child actively develops their brain nerve architecture and concepts of the world through their muscles and senses. In the early years Montessori said children have absorbent minds that are continuously absorbing and processing information about their world. It is therefore important to provide the 2-6 year old child with a lot of sensory experiences, once the child has experienced his world through his senses, and been able to order his mental images that he so rapidly absorbs, his understanding of his world makes the abstract concepts of alphabets, numbers, mathematics, etc. easier to understand.

This brings us to the realization that there is a lot going on in educating the mind of the child, it is more than identifying numbers, reciting the alphabet and writing it. The Montessori method may be slow but it is in-depth, and once it is completed it is faster than the traditional method. There is much to do but so much more to achieve.

Maria Montessori developed some beautiful materials that help the child to focus attention on sounds, smells, sights, tastes and tactile impressions: helping the child to make comparisons, fine distinctions, decisions and ordering of objects based on his sense impressions. All these help develop strong brain architecture and skills such as observation, comparison, judgment, reasoning and decision-making. When the child sees, hears, smells, tastes, and feels, electrical impulses race to his brain, where they are interpreted as sights, sounds, smells, tastes and objects that are being touched, these sense impressions are very powerful brain nerve stimulators.

The Sensory Materials:

The Sensory materials are usually a series of objects grouped together according to similar qualities such as colour, shape and size, sound, taste, texture or temperature. They are always the same quality but in different degrees. They are graded materials that help to demonstrate the difference which exist within a series, this in turn arouses interest in the child.

It is important to note that children can learn from their environment and not just from the sensory materials provided in school. Sense experiences are everywhere and the child needs to experience these to the full. It is therefore important to talk to the child about everything around you, things you see, hear, smell, touch and taste; this will help heighten the child's awareness.

The Senses, their organs and the Sensory Educational Materials:

In general we are told that there are 5 senses: sight sound touch, taste and smell.

In the Montessori setting there are 10 senses that need to be refined.

1. Visual the sense of sight, the organ is the eyes and all Montessori materials are used to train this organ.
2. Auditory the sense of hearing, sound, and the organ are the ears. The child should be able to distinguish between different sounds. The materials include the Sound jars, Montessori bell, piano
3. Olfactory the sense of smell, the organ is the nose and the material is the Smelling jar.
4. Baric the sense of appreciating weights, the organ are the hands and material the Baric Tablets
5. Stereognostic the sense of creating mental pictures through tactile and muscular sense, the organ is the hands and the materials are The Geometric Solids, The Geometric Presentation tray, Geometric Cabinet and Cards, Tessellation, Flat Shapes, Constructive Triangles, and Binomial Cube.

"When the hand and arm are moved about an object, an impression of movement is added to that touch. Such an impression is attributed to a special, sixth sense, which is called a muscular sense, and which permits many impressions to be stored in a "muscular memory", which recalls movements that have been made." Maria Montessori

1. Thermic the sense of appreciating temperature, the organ are the hands and materials the Thermic bottles and Thermic Tablets.
2. Tactile the sense of touch, the organ are the hands, materials are the Touch Boards and Touch Fabrics.

"Although the sense of touch is spread throughout the surface of the body, the Exercises given to the children are limited to the tips of the fingers, and particularly, to those of the right hand." Maria Montessori

1. Kinesthetic the blind-mans' sense. After the presentation, blindfold the child, they are to use their hands and muscles to recognize and name the objects. Materials, Touch Boards, Geometric Solids and Baric Tablets.
2. Gustatory the sense of taste, the organ is the tongue and material The Tasting Bottles.
3. Chromatic the sense of appreciating colors, the organ are the eyes and material The Color Boxes.

You should also be aware of the following factors

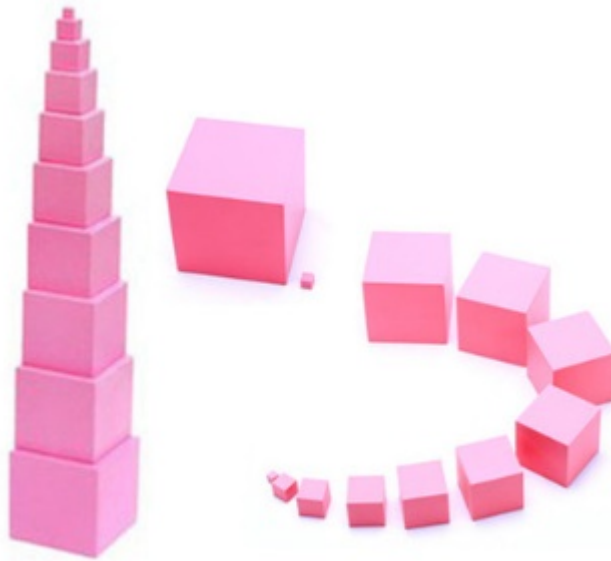
Sensory Education 1

1. The materials may be called by different names, so do not order materials unless you have seen a picture of what is offered
2. The materials should be made with good quality wood and with attention to detail, keeping the right dimensions in place. This ensures that the child learns the right characteristics of gradation and will develop a good eye for details.
3. Some substitutions can be made for the materials, even though a lot will need to be gotten like the pink tower, red rods, brown stairs and knobbed cylinders. Even if you cannot get all these to start with buy a few and add on every year till you have gotten all the materials you need.
4. Remember that all grading should be done left to right, mirroring our left to right writing direction.
5. Always sit at the right of the child in order that all your hand movements can be readily seen by the child.
6. Always include an extension that relates the material to the environment. E.g. Colours, shapes, patterns. Etc.

Montessori Sensory Materials and their aims and objectives

1. The Pink Tower – Helps develop visual discrimination between heights, develops pencil grip and aids the counting of 1 – 10.
2. The Long Red Rods – Visual discrimination of lengths, introduces the concept of sequence of progression and the concepts of 'long' and 'short'. Rods numbered 1 -10
3. The Broad Brown Stairs – Visual discrimination of thickness, introduces new vocabulary, thick, thin, broad, narrow, square and prisms numbered 1 – 10
4. The Colour Boxes (1-3) – Visual awareness of colour, discrimination of grades between shade gradation and introducing colour vocabulary.
5. The Knobbed Cylinders – being able to discriminate dimensions, practicing the pencil grip, and introduction of new vocabulary, large, small, thick, thin, shallow, deep, tall, short.
6. The Knobless Cylinders – providing more practice with discrimination of dimensions, pattern creation, and practice of former vocabulary learned, large, small, thick, thin, tall and short.
7. The Fabric box – Develops the tactile sense a bit further, working on texture
8. The Sound boxes – Training the ears to distinguish between different sounds
9. The Touch Boards – Helps the child develop a tactile sense of smooth and rough.
10. The Barrier Tablets - Helping to develop the tactile sense of weight.
11. The Taste Bottles - Helping to refine the sense of taste. (I suggest that instead of using the bottles bring in fruits that children can taste. Food should be fresh, much better from home than not, all health measures should be put in place to protect and keep the children safe)
12. The Smelling Bottles – These enable the children to refine their sense of smell
13. The Mystery bag - To be able to distinguish different shapes through touch only.
14. The Geometric Solids and Cabinet – Helps to develop the visual memory of form and shapes, and introduces the vocabulary of geometry.
15. The Binomial Cube – This is the 3 – D puzzle that represents the binomial equation $(a+b)^3$
16. The Montessori Bells – Develops auditory discrimination. Please use other musical instruments if you are unable to get the bells. Graded drums, gongon, shekere, would also do, or xylophones especially used by two children who cannot see what the other is doing. The first child should make 1 sound and the other child should replicate it.
17. The Constructive Triangles – helps the child consolidate knowledge of shape and size, (dimension) and colour and then develops in the child the concept that a triangle is a constructor, divisor as well as a consequence.
18. Tessellations – Helps the child to understand how to build patterns, tessellations, geometry and

The Pink Tower



The Broad Brown Stairs



The Long Red Rods



The Colour Boxes



The Sound Boxes



The Knobbed Cylinders



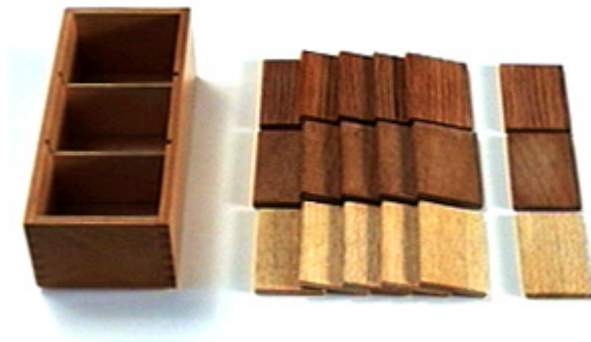
The Knobless Cylinders



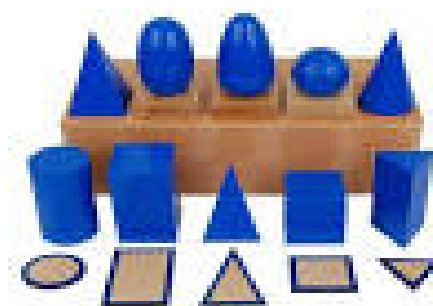
The Touch Boards



The Baric tablets



Geometric solids



Geometric cabinet



Binominal Cubes



Fabric Box



The Constructive Triangles



Tessellations

